

**Abstract**

To provide a robust soldering process for a top finger of a surface mount device, a lead frame having a top finger and a semiconductor device having the same are disclosed, wherein the top finger comprises a groove and the groove is provided at the bottom surface of the top finger that establishes contact with a die and adjacent to the contact position between the top finger and die so as to prevent solder from overflowing onto a chip passivation ring, reducing the stress on the die and increasing the reliability.